BUILT UNDER LICENSE AGREEMENT WITH GUSTAN HENSEL GMBH

WESCOSA Low Voltage

IEC Switchgear/Controlgear

www.wescosa.com
### WESCOSA-HENGEL

**Low-voltage Switchgear and Controlgear Assemblies**

**SAS 5000 - Equipment / Type of installation: Plug-in technology**

**Protection class: I (earthed)**

#### SAS 600

- **Panel dimensions:**
  - Width: as per panel equipping
  - Height: 2200 mm
  - Depth: 257 mm

#### Cabinet

<table>
<thead>
<tr>
<th>max. rating</th>
<th>Outgoing HENCONNECT Circuit breaker up to 630 A</th>
<th>Outgoing HENCONNECT Circuit breaker up to 630 A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incoming circuit: disconnectable</td>
<td>Incoming circuit: disconnectable</td>
</tr>
<tr>
<td></td>
<td>Outgoing circuit: fixed connection</td>
<td>Outgoing circuit: fixed connection</td>
</tr>
</tbody>
</table>

#### Equipment (consider derating)

- Circuit breaker 160-630 A
- 3- and 4-pole
- Type-tested:
  - Schneider Electric (Merlin Gerin)
  - Typ: NS 160 - NS 630

#### Panel equipping

<table>
<thead>
<tr>
<th>Panel width</th>
<th>Circuit breaker</th>
<th>Panel width 650 mm</th>
<th>Mountable Height 60 MH (1 MH 25 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 mm</td>
<td></td>
<td>400/630 A 3-pole = 8 MH</td>
<td></td>
</tr>
<tr>
<td>650 mm</td>
<td></td>
<td>400/630 A 3-pole = 6 MH</td>
<td></td>
</tr>
<tr>
<td>850 mm</td>
<td></td>
<td>160/250 A 4-pole = 8 MH</td>
<td></td>
</tr>
</tbody>
</table>

#### Panel width 1000 mm

<table>
<thead>
<tr>
<th>Equipment / Type of installation</th>
<th>Panel width</th>
<th>Circuit breaker</th>
<th>Panel width 850 mm</th>
<th>Mountable Height 60 MH (1 MH 25 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>400/630 A 4-pole = 9 MH</td>
<td></td>
<td>400/630 A 4-pole = 9 MH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>incoming circuit: disconnectable</td>
<td></td>
<td>incoming circuit: disconnectable</td>
<td></td>
</tr>
<tr>
<td>Operation</td>
<td>behind door</td>
<td></td>
<td>behind door</td>
<td></td>
</tr>
<tr>
<td>Inner partitioning</td>
<td>Form 4b</td>
<td></td>
<td>Form 4b</td>
<td></td>
</tr>
<tr>
<td>Main busbar allocation</td>
<td>2000 - 5000 A</td>
<td></td>
<td>2000 - 5000 A</td>
<td></td>
</tr>
<tr>
<td>N (PEN) conductor in area of phase conductors</td>
<td>option</td>
<td></td>
<td>option</td>
<td></td>
</tr>
<tr>
<td>N (PEN) conductor with same current carrying capacity as phase conductors</td>
<td>option</td>
<td></td>
<td>option</td>
<td></td>
</tr>
</tbody>
</table>

#### Distribution busbar / Wiring allocation

<table>
<thead>
<tr>
<th>Connection</th>
<th>Cable: via laterally or centrically arranged termination panel</th>
<th>Cable: via laterally or centrically arranged termination panel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### WESCOSA-HENGEL

**Low-voltage Switchgear and Controlgear Assemblies**

**SAS 5000 - Equipment / Type of installation: Plug-in technology**

**Protection class: I (earthed)**

#### SAS 600

- **Panel dimensions:**
  - Width: as per panel equipping
  - Height: 2200 mm
  - Depth: 257 mm

#### Cabinet

<table>
<thead>
<tr>
<th>max. rating</th>
<th>Outgoing HENCONNECT Switch disconnecter with circuit-breaker up to 630 A</th>
<th>Outgoing HENCONNECT Switch disconnecter with circuit-breaker up to 630 A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Incoming circuit: disconnectable</td>
<td>Incoming circuit: disconnectable</td>
</tr>
<tr>
<td></td>
<td>Outgoing circuit: fixed connection</td>
<td>Outgoing circuit: fixed connection</td>
</tr>
</tbody>
</table>

#### Equipment

- Switch disconnecter with fuse size
  - HRCOO - 3
  - 3- and 4- pole
- Type-tested:
  - Schneider Electric (Merlin Gerin)
  - Typ: NS 160 - NS 630

#### Panel equipping

<table>
<thead>
<tr>
<th>Panel width</th>
<th>Circuit breaker</th>
<th>Panel width 650 mm</th>
<th>Mountable Height 60 MH (1 MH 25 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 mm</td>
<td></td>
<td>400/630 A 3-pole = 6 MH</td>
<td></td>
</tr>
<tr>
<td>650 mm</td>
<td></td>
<td>160/250 A 4-pole = 9 MH</td>
<td></td>
</tr>
</tbody>
</table>

#### Panel width 1000 mm

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<tr>
<th>Equipment / Type of installation</th>
<th>Panel width</th>
<th>Circuit breaker</th>
<th>Panel width 850 mm</th>
<th>Mountable Height 60 MH (1 MH 25 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>160/250 A 3-pole = 6 MH</td>
<td></td>
<td>160/250 A 4-pole = 9 MH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>incoming circuit: disconnectable</td>
<td></td>
<td>incoming circuit: disconnectable</td>
<td></td>
</tr>
<tr>
<td>Operation</td>
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<td></td>
<td>behind door</td>
<td></td>
</tr>
<tr>
<td>Inner partitioning</td>
<td>Form 4b</td>
<td></td>
<td>Form 4b</td>
<td></td>
</tr>
<tr>
<td>Main busbar allocation</td>
<td>2000 - 5000 A</td>
<td></td>
<td>2000 - 5000 A</td>
<td></td>
</tr>
<tr>
<td>N (PEN) conductor in area of phase conductors</td>
<td>option</td>
<td></td>
<td>option</td>
<td></td>
</tr>
<tr>
<td>N (PEN) conductor with same current carrying capacity as phase conductors</td>
<td>option</td>
<td></td>
<td>option</td>
<td></td>
</tr>
</tbody>
</table>

#### Distribution busbar / Wiring allocation

<table>
<thead>
<tr>
<th>Connection</th>
<th>Cable: via laterally or centrically arranged termination panel</th>
<th>Cable: via laterally or centrically arranged termination panel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Optional equipment

- Separate control compartment for mounting control units

#### Compensation panel

| Compensation panel | 400 kvar |

#### Termination panel

<table>
<thead>
<tr>
<th>Termination panel HENCONNECT</th>
<th>Controlled power-factor correction/compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- N and PE busbar</td>
</tr>
</tbody>
</table>

#### Corner panel

| Corner panel | 5000 A |

#### Switch disconnecter

- Switch disconnecter with fuse size
  - HRCOO - 3
  - 3- and 4- pole
- Type-tested:
  - Schneider Electric (Merlin Gerin)
  - Typ: NS 160 - NS 630
- Cable fixing rail for outgoing circuits

#### Switch disconnecter with fuse size

<table>
<thead>
<tr>
<th>Panel width</th>
<th>Panel width 650 mm</th>
<th>Mountable Height 60 MH (1 MH 25 mm)</th>
<th>Compensation panel</th>
<th>Termination panel HENCONNECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 mm</td>
<td>NH 0 = 2 MH* / 2 MH (ABB)*</td>
<td></td>
<td>400 kvar</td>
<td>-N and PE busbar</td>
</tr>
<tr>
<td>650 mm</td>
<td>NH 1 = 3 MH* / 4 MH (ABB)*</td>
<td></td>
<td>400 kvar</td>
<td>- N and PE busbar</td>
</tr>
<tr>
<td>850 mm</td>
<td>NH 2 = 6 MH* / 8 MH (ABB)*</td>
<td></td>
<td>400 kvar</td>
<td>- N and PE busbar</td>
</tr>
<tr>
<td>1000 mm</td>
<td>NH 3 = 6 MH* / 8 MH (ABB)*</td>
<td></td>
<td>400 kvar</td>
<td>- N and PE busbar</td>
</tr>
<tr>
<td></td>
<td>* (4-pole doubled MH)</td>
<td>(only from fixed)</td>
<td></td>
<td>- N and PE busbar</td>
</tr>
</tbody>
</table>

####Incoming circuits: disconnectable

- from outside
  - behind door
  - Form 4b
- in the back area of the panel
  - option
  - option

####N (PEN) conductor

- in the back area of the panel
  - option
  - option

####Current carrying capacity as phase conductors

- Distribution busbar / Wiring allocation
  - 1500 - 2000 A vertical behind switchgear
  - 1500 - 2000 A vertical behind switchgear

####Optional equipment

- Cable: via laterally or centrically arranged termination panel
- Cable: via laterally or centrically arranged termination panel
- - Separate control compartment for mounting control units
- Compensation panel
- Termination panel HENCONNECT
- Corner panel 5000 A
### WESCOSA-HENGEL

#### Low-voltage Switchgear and Controlgear Assemblies

**SAS 5000 - Equipment / Type of installation:** Plug-in technology  
**Protection class:** I (earthed)

### SAS 600

**Panel dimensions:**  
- Width: as per panel equipping  
- Height: 2200 mm  
- Depth: 750 / 850 mm

---

<table>
<thead>
<tr>
<th>Cabinet</th>
<th>max. rating</th>
<th>incoming feeder</th>
<th>Outgoing</th>
<th>5000 A</th>
<th>5000 A</th>
</tr>
</thead>
</table>

- **Equipment**  
  - Moulded-Case Circuit Breaker (MCCB)  
  - Air Circuit Breaker (ACB)  
  - Type-tested:  
    - Schneider Electric (Merlin Gerin)  
    - Siemens

- **Panel equipping**  
  - Circuit breaker  
    - 3-pole up to...  
    - 4-pole up to...  
    - * (only for Schneider Electric)

- **Panel width**  
  - 400 mm  
    - 1600 A*  
  - 600 mm  
    - 3200 A  
  - 850 mm  
    - 3200 A  
  - 1000 mm  
    - 5000 A  
    - * (only for Fabr. Schneider Electric)

- **Panel dimensions:**  
  - Width: as per panel equipping  
  - Height: 2200 mm  
  - Depth: 750 / 850 mm

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### WESCOSA-HENGEL

#### Low-voltage Switchgear and Controlgear Assemblies

**SAS 5000 - Equipment / Type of installation:** Plug-in technology  
**Protection class:** I (earthed)

---

<table>
<thead>
<tr>
<th>Outgoing / Bus coupling</th>
<th>3200 A</th>
<th>Bus coupling</th>
<th>5000 A</th>
</tr>
</thead>
</table>

- **Equipment**  
  - Moulded-Case Circuit Breaker (MCCB)  
  - Air Circuit Breaker (ACB)  
  - Type-tested:  
    - Schneider Electric (Merlin Gerin)  
    - Siemens

- **Panel equipping**  
  - Circuit breaker  
    - 3-pole up to...  
    - * Siemens only from up to 1600 A  
  - 3200 A  
  - * (only MCCB from Schneider Electric)

- **Panel width**  
  - 2000 - 5000 A  
  - in the back area of the panel  
  - * (only MCCB from Schneider Electric)

- **Panel dimensions:**  
  - Width: as per panel equipping  
  - Height: 2200 mm  
  - Depth: 750 / 850 mm

---

### Optional equipment

- - Lightning stroke current arrester  
  - - separate control compartment for the installation of control device

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### See separate equipment compartment for mounting control units
WESCOSA-HENGEL
Low-voltage Switchgear and Controlgear Assemblies
SAS 5000
Type-tested busbar systems

Electrical parameters
Rated insulation voltage: AC 1000 V, VDE 0110
Overvoltage category: II
Degree of pollution: 3

Main busbar system up to 5000 A located in the back area of the cabinet.
Busbar enables the installation of electrical equipment and distribution busbars.
N conductor optional with a higher current carrying capacity as the phase conductors and EMC-compliant designed in the area of the phase conductors.

<table>
<thead>
<tr>
<th>Rated current (A)</th>
<th>2000 A</th>
<th>2500 A</th>
<th>3200 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated short-time withstand current Icw [kA]</td>
<td>60</td>
<td>72</td>
<td>72</td>
</tr>
<tr>
<td>Rated peak withstand current Ik [kA]</td>
<td>130</td>
<td>160</td>
<td>160</td>
</tr>
<tr>
<td>cos</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Rated current N (PEN)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N (PEN) conductor (standard)</td>
<td>1000 A</td>
<td>2000 A</td>
<td>2000 A</td>
</tr>
<tr>
<td>N (PEN) conductor (optional)</td>
<td>up to 3200 A</td>
<td>up to 3200 A</td>
<td>up to 3200 A</td>
</tr>
<tr>
<td>N (PEN) conductor in the area of phase conductors</td>
<td>5000 A</td>
<td>5000 A</td>
<td>5000 A</td>
</tr>
<tr>
<td>Optional</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rated short-time withstand current Icw [kA]</td>
<td>80</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Rated peak withstand current Ik [kA]</td>
<td>177</td>
<td>220</td>
<td>220</td>
</tr>
<tr>
<td>cos</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Rated current N (PEN)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N (PEN) conductor (standard)</td>
<td>2000 A</td>
<td>2000 A</td>
<td>3200 A</td>
</tr>
<tr>
<td>N (PEN) conductor (optional)</td>
<td>up to 3200 A</td>
<td>up to 3200 A</td>
<td>up to 3200 A</td>
</tr>
<tr>
<td>N (PEN) conductor in the area of phase conductors</td>
<td>5000 A</td>
<td>5000 A</td>
<td>5000 A</td>
</tr>
<tr>
<td>Optional</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The busbar system lies in the rear part of the cabinet. The busbar system can change heights of cabinets in the course of the installation which simplifies the use of bus-couplers.

Cabinets with 90° turnaround of busbars
In assemblies with several transformers, a busbar link can be set up with a 250 mm deep cabinet.

Left: Switch-disconnector with fuse, incoming circuit: disconnectable, outgoing circuit: fixed connection, cabinet 650 mm wide
Right: Switch-disconnector with fuse, incoming circuit: disconnectable, outgoing circuit: fixed connection, cabinet 650 mm wide
Centre: Termination panel 600 mm wide

Left: Left: Circuit-breaker, incoming/outgoing circuits: Disconnectable, Cabinet 650 mm wide
Right: Switch-disconnector with fuse, incoming circuit: disconnectable, outgoing circuit: fixed connection, cabinet 650 mm wide
Centre: Termination panel 600 mm wide

Left: Left: Circuit-breaker, incoming circuit: disconnectable, outgoing circuit: fixed connection, cabinet 650 mm wide
Centre: Termination panel 600 mm wide
Right: Switch-disconnector with fuse, incoming circuit: disconnectable, outgoing circuit: fixed connection, cabinet 650 mm wide

Left: Left: Circuit-breaker, incoming circuit: disconnectable, outgoing circuit: fixed connection, cabinet 650 mm wide
Centre: Termination panel 600 mm wide
Right: Switch-disconnector with fuse, incoming circuit: disconnectable, outgoing circuit: fixed connection, cabinet 650 mm wide
WESCO-HERGEL
Low-voltage Switchgear and Controlgear Assemblies
SAS 5000 - Equipment / Type of installation: **fixed**
Protection class: I (earthed)

**Panel dimensions:**
- **Width:** as per panel equipping
- **Height:** 2200 mm
- **Depth:** 750 / 850 mm

<table>
<thead>
<tr>
<th>Cabinet max. rating</th>
<th>Outgoing Moulded-Case Circuit Breaker (MCCB)</th>
<th>Outgoing Fuse switch disconnector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment (consider derating)</td>
<td>- Moulded-Case Circuit Breaker (MCCB)</td>
<td>- Fuse switch disconnector</td>
</tr>
<tr>
<td></td>
<td>- Type-tested</td>
<td>- Type-tested</td>
</tr>
<tr>
<td></td>
<td>- Schneider Electric (Merlin Gerin)</td>
<td>- Jean Müller</td>
</tr>
<tr>
<td></td>
<td>- Siemens</td>
<td>- Wöhner</td>
</tr>
<tr>
<td></td>
<td>- Efen</td>
<td></td>
</tr>
</tbody>
</table>

**Panel equipping**
- **Circuit breaker**
- **Fuse switch disconnector**

| Panel width 400 mm | 10 x NH 00 |
| Panel width 600 mm | 10 x NH 00 / 5 x NH 1-3 |
| Panel width 850 mm | 14 x NH 00 / 7 x NH 1-3 |
| Panel width 1000 mm | 18 x NH 00 / 9 x NH 1-3 |

**Equipment / Type of installation**
- **Operation:** from outside
- **Inner partitioning:** Form 2b
- **Main busbar allocation:** 2000 - 5000 A
- **N (PEN) conductor in area of phase conductors:** option
- **N (PEN) conductor with same current carrying capacity as phase conductors:** option
- **Distribution busbar / Wiring allocation:**
  - **1000 - 2000 A vertical behind circuit breaker:** 630 - 1700 A
  - **Behind fuse-breaker switch with Connection to main busbar:** Cable: top / bottom

**Optional equipment**
- **- separate compartment for the installation of electrical device**

**Compensation panel**
- **400 kvar**
- **- controlled power-factor correction/compensation**
- **Type-tested:**
  - KBR
  - Frako
  - Chiked power-factor correction/compensation
  - 200 kvar / 5,5 - 14 %
  - 400 kvar / 5,5 - 14 %
- **fixed**
- **Controls by controller**
  - **Form 1**
  - **2000 - 5000 A in the back area of the cabinet**
  - **option**
  - **630 A**
  - **vertical on the compensation modules**
  - **option**
  - **via group back-up fuse from mail busbar system or via cable from the bottom**
- **Corner panel 5000 A**
- **- 90° turn-around of busbars**
### WESCOSA-HENGEL

**Low-voltage Switchgear and Controlgear Assemblies**

**SAS 5000 - Equipment / Type of installation: fixed**

**Protection class: I (earthed)**

---

**SAS 600**

Panel dimensions:
- Width: as per panel equipping
- Height: 2200 mm
- Depth: 750 / 850 mm

<table>
<thead>
<tr>
<th>Panel dimensions:</th>
<th>Max. rating</th>
<th>Incoming-feeder panel</th>
<th>Outgoing panel</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>abset</em></td>
<td>5000 A</td>
<td>5000 A</td>
<td></td>
</tr>
</tbody>
</table>

**Equipment (consider derating):**
- Moulded-Case Circuit Breaker (MCCB)
- Air Circuit Breaker (ACB)
- Type-tested
- Schneider Electric (Merlin Gerin)
- Siemens

**Panel equipping:**
- Circuit breaker
  - 3-pole up to...4-pole up to...
- Panel width 400 mm
  - 1600 A* - 1600 A*
- Panel width 600 mm
  - 3200 A - 3200 A
- Panel width 850 mm
  - 3200 A - 3200 A
- Panel width 1000 mm
  - 5000 A - 5000 A

**Equipment / Type of installation:**
- Fixed
- Operation from outside
- Inner partitioning: Form 2b
- Main busbar allocation:
  - 2000 - 5000 A in the back area of the cabinet
- N (PEN) conductor in area of phase conductors
- N (PEN) conductor with same current carrying capacity as phase conductors
- Distribution busbar / Wiring allocation:
  - Cable: top / bottom
  - Busbar: top / bottom
- Optional equipment:
  - Lighting stroke current arrester
  - Separate control compartment for the installation of control device

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**WESCOSA-HENGEL**

**Low-voltage Switchgear and Controlgear Assemblies**

**SAS 5000 - Equipment / Type of installation: fixed**

**Protection class: I (earthed)**

<table>
<thead>
<tr>
<th>Panel dimensions:</th>
<th>Max. rating</th>
<th>Abgangs- / Bus coupling</th>
<th>Bus coupling</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>abset</em></td>
<td>5000 A</td>
<td>5000 A</td>
<td>5000 A</td>
</tr>
</tbody>
</table>

**Equipment:**
- Moulded-Case Circuit Breaker (MCCB)
- Air Circuit breaker (ACB)
- Type-tested
- Schneider Electric (Merlin Gerin)
- Siemens

**Panel equipping:**
- Circuit breaker
  - 3-pole up to...
- Panel width 400 mm
  - 1600 A*
- Panel width 600 mm
  - 3200 A
- Panel width 850 mm
  - 3200 A
- Panel width 1000 mm
  - 5000 A

**Equipment / Type of installation:**
- Fixed
- Operation from outside
- Inner partitioning: Form 2b
- Main busbar allocation:
  - 2000 - 5000 A in the back area of the cabinet
  - Option (panel width as per 4-pole)
- N (PEN) conductor in area of phase conductors
- Distribution busbar / Wiring allocation:
  - Cable: top / bottom
  - Busbar: top / bottom
- Optional equipment:
  - Separate control compartment for the installation of control device

---
Built-in devices:
Main busbar system:
As standard (EMC-compliant, with N/PEN conductor in the area of the phase conductors (optional))
N/PEN conductor with the same current carrying capacity as the phase conductors (optional)

Switchgear:
Circuit breaker 160-630 A: Circuit breaker 800-5000 A:
• Fixed part
• Withdrawable part
• Plug-in technology

Switchgear-disconnector with strip type HRC fuse, size HRC 00 – HRC 3:
• Plug-in technology

Fuse switch-disconnector with strip type HRC fuse, size HRC 00 – HRC 3:
• Fixed part

Reactive current compensation:
• Fixed part linked to the main busbar via group back-up fuse
• Connection via cable
• Plug-in technology

Cabinet for 90° extension, 850 x 850 mm:
• With turn around of the busbars
• Enables the mounting of the switchgear in a L- or U shaped assembly

Connection:
• Cable from top and/or bottom
• With busbar trunking system from top or bottom

Areas of application:
Main distribution board or subdistribution board
For the reliable supply of energy
• of industrial, commercial and trade buildings
• of railway companies, particularly in technical areas of all commercial departments
• of administration building, hospitals, exhibition halls, etc.
WESCOSA-HENSEL
Low-voltage Switchgear and Controlgear Assemblies
SAS 2000
Type-tested busbar systems

Electrical parameters

<table>
<thead>
<tr>
<th>Rated insulation voltage:</th>
<th>AC 1000 V, VDE 0110</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overvoltage category:</td>
<td>III</td>
</tr>
<tr>
<td>Degree of pollution:</td>
<td></td>
</tr>
</tbody>
</table>

Main busbar system up to 2500 A located in the upper or lower area of the cabinet.
It serves for the connection of electrical equipment and distribution busbars.
N conductor optional with a higher current carrying capacity as the phase conductors and EMC- compliant in the area of the phase conductors.

<table>
<thead>
<tr>
<th>Rated current (A)</th>
<th>250A</th>
<th>400A</th>
<th>630A</th>
<th>1000A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated short-time withstand current 1cw [kA]</td>
<td>15</td>
<td>15</td>
<td>21</td>
<td>36</td>
</tr>
<tr>
<td>Rated peak withstand current 1pk [kA]</td>
<td>30</td>
<td>30</td>
<td>45</td>
<td>75</td>
</tr>
<tr>
<td>cos</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
<td>0.25</td>
</tr>
<tr>
<td>Rated current N(PEN) conductor (standard)</td>
<td>230A</td>
<td>400A</td>
<td>630A</td>
<td>630A</td>
</tr>
<tr>
<td></td>
<td>Up to 2000 A</td>
<td>Up to 2000 A</td>
<td>Up to 2000 A</td>
<td>Up to 2000 A</td>
</tr>
<tr>
<td>N(PEN) conductor in the area of phase conductors</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>Rated current (A)</td>
<td>1250A</td>
<td>1600A</td>
<td>2000A</td>
<td>2500A</td>
</tr>
<tr>
<td>Rated short-time withstand current 1cw [kA]</td>
<td>45</td>
<td>59</td>
<td>59</td>
<td>59</td>
</tr>
<tr>
<td>Rated peak withstand current 1pk [kA]</td>
<td>100</td>
<td>130</td>
<td>130</td>
<td>130</td>
</tr>
<tr>
<td>cos</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Rated current N(PEN) conductor (standard)</td>
<td>1000A</td>
<td>1000A</td>
<td>1000A</td>
<td>2000A</td>
</tr>
<tr>
<td></td>
<td>Up to 2000 A</td>
<td>Up to 2000 A</td>
<td>Up to 2000 A</td>
<td>Up to 2000 A</td>
</tr>
<tr>
<td>N(PEN) conductor in the area of phase conductors</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
</tbody>
</table>

Main busbar system up to 2500 A located in the upper or lower area of the cabinet.
It serves for the connection of electrical equipment and distribution busbars.

<table>
<thead>
<tr>
<th>Rated current(A)</th>
<th>630A</th>
<th>1000A</th>
<th>1250A</th>
<th>1700A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated short-time withstand current 1cw [kA]</td>
<td>21</td>
<td>36</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Rated peak withstand current 1pk [kA]</td>
<td>45</td>
<td>75</td>
<td>110</td>
<td>110</td>
</tr>
<tr>
<td>cos</td>
<td>0.3</td>
<td>0.25</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Rated current N(PEN) conductor (standard)</td>
<td>630 A</td>
<td>630 A</td>
<td>630 A</td>
<td>1700 A</td>
</tr>
<tr>
<td></td>
<td>Up to 2000 A</td>
<td>Up to 2000 A</td>
<td>Up to 2000 A</td>
<td>Up to 2000 A</td>
</tr>
<tr>
<td>N(PEN) conductor in the area of phase conductors</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
</tr>
</tbody>
</table>
WESCOSA-HENSEL
Low-voltage Switchgear and Controlgear Assemblies
SAS 2000 - Equipment / Type of installation: fixed
Protection class: I (earthed)

<table>
<thead>
<tr>
<th>Panel Equipping</th>
<th>Cabinet max. rating</th>
<th>Incoming-feeder 1600 A</th>
<th>Outgoing 1600 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel dimensions:</td>
<td>Width: as per panel equipping</td>
<td>Protection covers behind door</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Height: 2200 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Depth: 500 mm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment (consider derating)</th>
<th>Panel width 400 mm</th>
<th>Panel width 600 mm</th>
<th>Panel width 850 mm</th>
<th>Panel width 1000 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1600 A*</td>
<td>1600 A*</td>
<td>1600 A*</td>
<td>*Only MCCB from Schneider Electric</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1600 A*</td>
<td>2 x 1600 A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1600 A*</td>
<td>2 x 1600 A*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1600 A*</td>
<td>2 x 1600 A*</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel Equipping</th>
<th>Circuit breaker</th>
<th>Circuit breaker</th>
<th>Circuit breaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel width 400 mm</td>
<td>3 pole up - 4 pole up to</td>
<td>3 pole up to</td>
<td>3 pole up to</td>
</tr>
<tr>
<td>Panel width 600 mm</td>
<td>1600 A*</td>
<td>1600 A*</td>
<td>1600 A*</td>
</tr>
<tr>
<td>Panel width 850 mm</td>
<td>1600 A*</td>
<td>2 x 1600 A*</td>
<td>2 x 1600 A*</td>
</tr>
<tr>
<td>Panel width 1000 mm</td>
<td>*Only MCCB from Schneider Electric</td>
<td>*Only MCCB from Schneider Electric</td>
<td>*Only MCCB from Schneider Electric</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment / Type of installation</th>
<th>Operation</th>
<th>Form 1</th>
<th>Form 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>from outside</td>
<td>behind door / from outside</td>
<td>from outside</td>
<td>from outside</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Main busbar allocation</th>
<th>N (PEN) conductor in area of phase conductors</th>
<th>N (PEN) conductor with same current carrying capacity as phase conductors</th>
<th>Distribution busbar / Wiring allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>central behind switchgear</td>
<td>option (panel width as per 4-pole)</td>
<td>option (panel width as per 4-pole)</td>
<td>Cable: top / bottom</td>
</tr>
<tr>
<td>630 - 1700 A</td>
<td>option</td>
<td>option</td>
<td>Cable: top / bottom</td>
</tr>
<tr>
<td>option</td>
<td>option</td>
<td>option</td>
<td>Cable: top / bottom</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Optional equipment</th>
<th>Cable: top / bottom</th>
<th>Cable: top / bottom</th>
<th>Cable: top / bottom</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Lightning stroke current arrester</td>
<td>- Separate control compartment for mounting of control devices</td>
<td>- Separate control compartment for mounting of control devices</td>
<td>- Separate control compartment for mounting of control devices</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outgoing fuse switch disconnector</th>
<th>Corner panel</th>
<th>Corner panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>630 A</td>
<td>1700 A</td>
<td>2500 A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fuse switch disconnector</th>
<th>Connection via busbar from middle-top-bottom</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 x NH00 / 4 x NH 1-3</td>
<td>630 - 1700 A</td>
</tr>
<tr>
<td>14 x NH00 / 7 x NH 1-3</td>
<td>250 - 1500 A</td>
</tr>
<tr>
<td>90° turn-around of busbars</td>
<td>1600 A</td>
</tr>
<tr>
<td>90° turn-around of busbars</td>
<td>1600 A</td>
</tr>
</tbody>
</table>

| Cable: top / bottom | Separate compartment for the installation of electrical device |
### WESCOSA-HENSEL

**Low-voltage Switchgear and Controlgear Assemblies**

**SAS 2000 - Equipment / Type of installation: fixed**

**Protection class: I (earthed)**

#### SAS 2000

<table>
<thead>
<tr>
<th>Cabinet</th>
<th>Outgoing Kompakt Circuit breaker</th>
<th>Compensation panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>max. rating</td>
<td>630</td>
<td>A400 kvar</td>
</tr>
</tbody>
</table>

**Equipment (consider derating):**

- Moulded-Case Circuit Breaker (MCCB)
- Type-tested:
- Schneider Electric (Merlin Gerin)
- Siemens

**Panel Equipping:**

- Choked power-factor correction / compensation

<table>
<thead>
<tr>
<th>Panel width</th>
<th>Circuit breaker</th>
<th>Compensation panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>600 mm</td>
<td></td>
<td>200 kvar / 5,5 - 14 %</td>
</tr>
<tr>
<td>850 mm</td>
<td></td>
<td>400 kvar / 5,5 - 14 %</td>
</tr>
<tr>
<td>1000 mm</td>
<td>8 x 160/250 A / 4 x 400/630 A</td>
<td></td>
</tr>
</tbody>
</table>

**Equipment / Type of installation:**

- Fixed

**Operation:**

- From outside or behind door
  - Controls by controller

**Inner partitioning:**

- Form 2b
- Form 1

**Main busbar allocation:**

- 250-2500 A
- 250-2500 A

**N (PEN) conductor in area of phase conductors N (PEN) conductor with same current carrying capacity as phase conductors:**

<table>
<thead>
<tr>
<th>Option</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td>top / bottom</td>
<td>top / bottom</td>
</tr>
</tbody>
</table>

**Distribution busbar / Wiring allocation:**

- 1000-2000 vertical behind circuit breaker
  - A630 A vertical on the compensation modules

**Connection:**

- Cable: top / bottom
  - Via group back-up fuse from main busbar system or via cable from the bottom

**Optional equipment:**

- Separate control compartment for mounting control units

---

### WESCOSA-HENSEL

**Low-voltage Switchgear and Controlgear Assemblies**

**SAS 2000 - Equipment / Type of installation: fixed**

**Protection class: I (earthed)**

<table>
<thead>
<tr>
<th>Outgoing fuse switch disconnector</th>
<th>Outgoing fuse switch disconnector</th>
<th>Equipment-distribution board</th>
</tr>
</thead>
<tbody>
<tr>
<td>630 A</td>
<td>630 A</td>
<td>630 A</td>
</tr>
</tbody>
</table>

**Fuse switch disconnector:**

- Jean Muller
- Wohner
- Efen

**Type-tested:**

- Jean Muller
- Wohner
- Efen

**Panel width:**

- 400 mm: 2 x NH00 / 5 x NH 1-3
- 600 mm: 9 x NH00 / 4 x NH 1-3
- 850 mm: 14 x NH00 / 7 x NH 1-3
- 1000 mm: 14 x NH00 / 7 x NH 1-3

**Operation:**

- From outside or behind door
  - Behind door

**Inner partitioning:**

- Form 1
- Form 2b

**Main busbar allocation:**

- 250 – 2500 A
- 250 – 2500 A

**N (PEN) conductor in area of phase conductors N (PEN) conductor with same current carrying capacity as phase conductors:**

- Option
- Option

**Distribution busbar / Wiring allocation:**

- 630-1700 A
  - Centered behind fuse switch disconnector with connection to main busbar system
  - Centered behind fuse switch disconnector with connection to main busbar system
  - Centered behind fuse switch disconnector with connection to main busbar system

**Connection:**

- Cable: top / bottom
  - Via group back-up fuse from main busbar system or via cable from the bottom

**Optional equipment:**

- Separate control compartment for the installation of the electrical device
- Separate control compartment for the installation of the electrical device
### WESCOSA-HENSEL

**Low-voltage Switchgear and Controlgear Assemblies**

**SAS 2000 - Equipment / Type of installation: fixed**

**Protection class: I (earthed)**

##### SAS 600

**Panel dimensions:**
- **Width:** as per panel equipping
- **Height:** 2200 mm
- **Depth:** 500 mm

<table>
<thead>
<tr>
<th>Cabinet</th>
<th>max. rating</th>
<th>Incoming-feeder panel</th>
<th>Outgoing 2500 A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>max. rating</td>
<td></td>
</tr>
<tr>
<td>max. rating</td>
<td>2500 A</td>
<td>1600 A</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td>(consider derating)</td>
<td>- Siemens Circuit breaker</td>
<td>- Siemens Circuit breaker</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Seimens Circuit breaker</td>
<td>- Seimens Circuit breaker</td>
</tr>
</tbody>
</table>

**Panel dimensions:**
- **Width:** as per panel equipping
- **Height:** 2200 mm
- **Depth:** 500 mm
<table>
<thead>
<tr>
<th><strong>SAS 600</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Busbars:</strong></td>
<td>250 up to 2500 A</td>
</tr>
<tr>
<td><strong>EMC-compatible:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Protection class:</strong></td>
<td>with protective earth</td>
</tr>
<tr>
<td><strong>Conductor:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Degree of Protection:</strong></td>
<td>IP 30 up to IP 54</td>
</tr>
</tbody>
</table>

**Built-in devices:**

**Main busbar system:**

As standard
- EMC-compliant, with N/PEN conductor in the area of the phase conductors (optional)
- N/PEN conductor with the same current carrying capacity as the phase conductors (optional)

**Switchgear:**

Circuit breaker 160-630 A:
- Fixed part
- Withdrawable part
- Plug-in technology

Circuit breaker 800-2500 A:
- Fixed part
- Withdrawable part

Switchgear-disconnector with strip type HRC fuse, size HRC 00 – HRC 3:
- Plug-in technology

Fuse switch-disconnector with strip type HRC fuse, size HRC 00 – HRC 3:
- Fixed part

**Reactive current compensation:**

- Fixed part linked to the main busbar via group back-up fuse
- Connection via cable

**Cabinet for 90° extension, 600 x 600 mm:**

- With turn around of the busbar
- Enables the mounting of the switchgear in a L- or U shaped assembly

**Connection:**

- Cable from top and/or bottom
- With busbar trunking system from top or bottom

**Areas of application:**

Main distribution board or subdistribution board for the reliable supply of energy
- of industrial, commercial and trade buildings
- of railway companies, particularly in technical areas of all commercial departments
- of administration building, hospitals, exhibition halls, etc.
# WESCOSA-HENSEL

## Low-voltage Switchgear and Controlgear Assemblies

**SAS 600 - Equipment / Type of installation:** fixed

**Protection class:** I (earthed)

### SAS 600

<table>
<thead>
<tr>
<th>Cabinet Max. rating</th>
<th>Incoming-feeder panel</th>
<th>Outgoing panel</th>
<th>Bus coupling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>630 A (protection covers behind door)</td>
<td>630 A (protection covers behind door)</td>
<td>630 A (protection covers behind door)</td>
</tr>
</tbody>
</table>

- **Equipment**
  - Moulded
    - Case Circuit Breaker Moulded (MCCB)
    - Type-tested
  - Schneider Electric
    - Merlin Gerin
    - Siemens
  - Siemens

- **Panel equipment**
  - 3-pole up to ...
  - 630 A*
  - 1X630 A*
  - 3X 630 A*
  - 4X 630 A*

- **Panel width**
  - 350mm
  - 600mm
  - 850mm
  - 1100mm

- **Operation**
  - Behind door / from outside
  - Form 1

- **Main busbar allocation**
  - Top/bottom

- **N/PEN conductor in area of phase conductors**
  - Standard

- **N/PEN conductor with same current carrying capacity as phase conductors**
  - Standard

- **Distribution busbar Wiring allocation**
  - Connection
  - Cable: top/bottom

- **Optional equipment**
  - Lightning stroke current arrestor (tested design)
  - Separate control compartment for mounting of control devices

### Panel dimensions:
- **Width:** as per panel equipping
- **Height:** 2200 mm
- **Depth:** 257 mm

### Equipment-distribution board

<table>
<thead>
<tr>
<th>Equipment-distribution board</th>
<th>Outgoing panel</th>
<th>Compensation Panel</th>
<th>Panel dimensions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>630 A (protection covers behind door)</td>
<td>630 A (protection covers behind door)</td>
<td>100 kvar</td>
<td>Width: as per panel equipping</td>
</tr>
<tr>
<td>630 A (protection covers behind door)</td>
<td>Fuse switch disconnector, strip-type</td>
<td>Controlled power-factor correction/compensation</td>
<td>Height: 2200 mm</td>
</tr>
<tr>
<td>630 A (protection covers behind door)</td>
<td>Choked power-factor correction/compensation</td>
<td>90° turn-around of busbars</td>
<td>Depth: 257 mm</td>
</tr>
</tbody>
</table>

- **Switchgear...**
  - Fuse switch disconnector
  - Choked power-factor correction/compensation

<table>
<thead>
<tr>
<th>Up to 360 A/13 RF*</th>
<th>Up to 360 A/26RF*</th>
<th>Up to 360 A/52RF*</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 NH 00</td>
<td>12 NH 00</td>
<td>24 NH 00</td>
</tr>
</tbody>
</table>

- **Grid area 150x250 mm**
  - (Please consider space for wiring)
  - Fixed
  - Fixed
  - Fixed

- **Cable: top/bottom**
  - Via group back-up fuse from main busbar system or via cable from the bottom

- **Optimal equipment**
  - 250A-630A coupling
  - Cable: top/bottom

---

*WESCOSA-HENSEL*

Low-voltage Switchgear and Controlgear Assemblies

SAS 600 - Equipment / Type of installation: fixed

Protection class: I (earthed)
A color management system reconciles color differences among devices so that you can be reasonably certain of the colors your system ultimately produces. Viewing color accurately allows you to make sound color decisions throughout your workflow, from digital capture through final output. Color management also allows you to create output based on ISO, SWOP, and Japan Color print production standards.

Understanding color management
Keeping colors consistent
Color-managing imported images
Color-managing documents for online viewing
Proofing colors
Color-managing documents when printing
Working with color profiles
Color settings

SAS 600

Busbars: 250 up to 630 A
EMC-compatible
Protection class: with protective earth
Conductor
Degree of Protection: IP 30 up to IP 54
**SAS 2000 / SAS 2000i**

**Low Voltage IEC Switchgear and Controlgear Assemblies**

**General Information**

### Quality Standard

Hensel, an alliance partner of WESCOSA, has been producing low-voltage switchgear and controlgear assemblies for industry, commerce and functional buildings for more than 50 years.

Innovative systems made from insulating materials and sheet steel have made Hensel into a leading supplier in the distribution of electrical energy.

### Type-tested Quality

The market lead which we and our alliance partner are able to command test on a solid foundation of a consistently high standard of quality. WESCOSA-Hensel Low Voltage IEC Switchgear \ Controlgear meets the highest demands of ISO 9001:2000 with all its operating areas.

It is both a requirement and a promise to do everything not only to ensure the high level of quality of products in the future but also to extend it. It can be taken for granted that we are working on the continued optimization of operating processes on all levels.

### Certified arcing fault protection

A very fast system shut down within the switchgear system prevents loss and long term downtimes of energy supply. Through this production halts and production losses are avoided.

### Certified arcing fault deletion: ARCON: in 2 ms

### Allocation of bus system – Port/ Interface link into factory master control system

Through the utilization of bus system in industrial building automation, new perspectives regarding initial operation, parameterization, diagnostics, maintenance, and the operation of electrical switchgear assemblies, are provided. A wide variety of cost saving and increased productivity methods can be implemented into industrial plants, building and infrastructure projects. The linking of communicative equipment technology to building automation systems offer numerous advantages:

- Preventive maintenance to avoid expensive system downtimes.
- Effective diagnostic management to increase the system availability.
- Data entry and visualization of measured data as a basis of efficient load management.
- Compilation of energy necessity profiles and energy allocation to cost centers.
- Remote monitoring and supervision.

We integrate modern switchgear units and control elements in our switchgear assemblies and offer you the required bus interfaces, field bus systems and industrial Ethernet adaptors.

### Type-tested switchgear assemblies

#### Technical Features:

- Rated Current: up to 5000 A
- Rated Voltage: 690 V AC
- Rated Peak withstand current: up to 1 pk = 330 kA
- Network systems: TN, TT, IT
- Protection class: I with protective Earth conductor up to 5000A
- Degree of protection: IP 30 to IP 65

During the development stage, we place particular value on a simple and time-saving installation of the switchgear assemblies on site as well as sufficiently large wiring compartments.

---

**SAS 600 / SAS 600i**

**Low Voltage IEC Switchgear and Controlgear Assemblies**

**General Information**

Assembled, metal-enclosed low voltage switchgear assembly in cabinet form as a free-standing unit as “type-tested switchgear and controlgear assembly” TTA in accordance with IEC 60 439 / EN 60 439-1.

- Standardized and type-tested modules enable the design of all circuit variants of a modern and reliable energy supply.
- Generous wiring compartments save time when connecting the cables.
- Practical devices for transport and installation makes it easier to work on site.
- Totally insulated switchgear assemblies up to a rated busbar current of 2500 A.

#### Specifications:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>2200 mm</td>
</tr>
<tr>
<td>Width</td>
<td>400; 600; 850; 1000 mm</td>
</tr>
<tr>
<td>Depth</td>
<td>500 / 600 mm</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP 30, IP 40, IP 54</td>
</tr>
<tr>
<td>Protection class</td>
<td>I earthed</td>
</tr>
<tr>
<td>II double isolated</td>
<td></td>
</tr>
<tr>
<td>Main busbars</td>
<td>1250, 1600, 2000, 2500 A</td>
</tr>
</tbody>
</table>

---

**SAS 5000**

**Low Voltage IEC Switchgear and Controlgear Assemblies**

**General Information**

Assembled, metal-enclosed low voltage switchgear assembly in cabinet form as a free-standing unit as “type-tested switchgear and controlgear assembly” TTA in accordance with IEC 60 439 / EN 60 439-1.

- Standardized and type-tested modules enable the design of all circuit variants of a modern and reliable energy supply.
- Generous wiring compartments save time when connecting the cables.
- Practical devices for transport and installation makes it easier to work on site.
- ARCON Arcing fault recognition with automatic cut-off within 2 ms.

#### Specifications:

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<th>Feature</th>
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</tr>
<tr>
<td>Width</td>
<td>400; 600; 850; 1000 mm</td>
</tr>
<tr>
<td>Depth</td>
<td>750 / 850 mm</td>
</tr>
<tr>
<td>Degree of protection</td>
<td>IP 30</td>
</tr>
<tr>
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<tr>
<td>Main busbars</td>
<td>1200, 2500, 3200, 4000, 5000 A</td>
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**SAS 2000 / SAS 2000i**

**Low Voltage IEC Switchgear and Controlgear Assemblies**

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